Chrysanthemum plant named 'Redock Dark'

RELATED CULTIVARS

'Redock Dark' is related to 'Redock Orange' (# ....) and 'Redock Salmon' (#.................).These varieties are all mutants of the original 'Redock'(unpatented).

BACKGROUND OF THE INVENTION

'Redock Dark' is a product of a breeding and selection program which had the objective of finding color mutants of 'Redock'. The new plant of the present invention comprises a new and distinct cultivar of chrysanthemum plant that is a natural occuring sport of a parent chrysanthemum named 'Redock' (unpatented). A comparison with Parent chrysanthemum 'Redock' is also made in this application. The new cultivar was discovered as a whole plant mutation in September 1999 by Rob Noodelijk in a controlled environment (greenhouse) in Rijsenhout Holland. The first act of asexual reproduction of 'Redock Dark' was accomplished when vegetative cuttings were taken from the initial selection in November 1999 in Rijsenhout Holland.

SUMMARY OF THE INVENTION

The present invention is a new and distinct variety of chrysanthemum bearing medium sized blooms with pink ray-florets and yellow-green disc florets.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention of a new and distinct variety of chrysanthemum is shown in the accompanying drawings, the color being as nearly true as possible with color photographs of this type.

Fig. 1 shows a plant of the cultivar in full bloom.

Fig. 2 shows the foliage of the cultivar.

DESCRIPTION OF THE INVENTION

This new variety of chrysanthemum is of the botanical classification dendranthema grandiflora. The observations and measurements were gathered from plants grown in April / May in a greenhouse in Rijsenhout Holland in a photo-periodic controlled crop under conditions generally used in commercial practice. The greenhouse temperatures during this crop were at day-time between 18°C and 25°C and at night 20°C. After a long day period of 14 days the photo-periodic response time in this crop was 47 days. After the long day period to flowering growth retardants were applied 3 times in an average dose of 2.5 gram / liter water. No tests were done on disease or insect resistance or susceptibility. This new variety produces medium sized blooms with pink ray-florets and yellow-green disc-florets blooming on the plant for 4 weeks. This new variety of chrysanthemum has been found to retain its distinctive characteristics throughout successive propagations however the phenotype may vary significantly with variations in environment such as light intensity and temperature. To show the phenotype as described 'Redock Dark' can be planted without assimilation lightning (high pressure sodium lamps) between week 50 and week 40 of the next year under greenhouse conditions in Holland. With assimilation light (minimum level 2500 lux) it can be planted year round under greenhouse conditions in Holland.

From the cultivars known to inventor the most similar existing cultivar in comparison to 'Redock Dark' is 'Redock'. When 'Redock' and 'Redock Dark' are being compared the following differences and similarities are noticed: The difference of 'Redock' and 'Redock Dark' is the darker pink ray-floret color for which characteristics 'Redock Dark' has been selected out of 'Redock'. All other characteristics of 'Redock' and 'Redock Dark' are similar.
From other commercial varieties 'Dark Reagan ' (USPP 8966) and 'Blue Pink Elite Reagan' (not patented yet) are the most similar. The differences between 'Dark Reagan', 'Blue Pink Elite Reagan' and 'Redock Dark' are (1) Flower form and color. The ray-florets of 'Redock Dark' are more upright, less broad, more pointed and more concave. The ray-floret color of 'Redock Dark' is slightly more red. (2) Vigour. Under the same circumstances the plants of 'Redock Dark' are 20 cm longer. (3) Response time. The response time of 'Redock Dark' is shorter. (4) The disc-floret size of 'Redock Dark' is smaller. (5) Foliage size and color. The foliage of 'Redock Dark' is bigger and more yellow-green.

The following is a description of the plant and characteristics that distinguish 'Redock Dark' as a new and distinct variety. The color designations are taken from the plant itself. Accordingly, any discrepancies between the color designations and the colors depicted in the photographs are due to photographic tolerances. The color chart used in this description is: The Royal Horticultural Society color chart, edition 1995.

Table 1:Botanical Description of

CULTIVAR 'Redock Dark'

<u>Bud</u>	
Size	small, cross-section +/- 0.7 cm height +/- 0.9 cm
Outside Color	Red-purple 73 D
Involucral bracts	3 rows, length 8 mm, width 3 mm
Involucral bracts among disc-florets	Not present
Involucral bracts color	Green 147 B
<u>Bloom</u>	
Type	Single
Height	High
Size	Medium
Fully Expanded	7.0 cm
Number of blooms per single stem	Average of 14
Seeds	Not produced
Performance (blooming period)	4 weeks
Fragrance	Typical chrysanthemum
<u>Color</u>	
Center of the flower (disc-florets)	Immature yellow-green 144 A Mature yellow-green 151 C
Color of upper surface of the majority of the ray-florets	Red – purple 74 D
Color of the lower surface of the majority of the ray-florets	Red-purple 73 D
Tonality from Distance	A spray mum with pink flowers and a yellow-green disc
Discoloration to color	To color 73 D

Ray florets

Texture	Upper and under side smooth
Number	26 – 28
Cross-section	Strongly concave
Longitudinal axis of majority	Reflexing
Length of corolla tube	Short
Ray-floret length	3.3 cm
Ray-floret width	1.0 cm
Ratio length / width	Medium
Shape of tip	Pointed, very occasionally round

Disc florets

Disc diameter	0.8 – 1.0 cm
Distribution of disc florets	Numerous, clearly visible at all stages of flowering
Shape	Tubular
Color	Yellow-green 144 A
Receptacle shape	Conical raised

Reproductive Organs

Stamen (present in disc florets only)	Thin 3 mm in length
Stamen color	Yellow-green 144 B
Pollen	No pollen present
Pollen color	Not applicable
Styles (present in both ray and disc florets)	Thin
Style color	Yellow-green 144 B
Style Length	4 mm
Stigmas	Yellow-green 144 B

Stigma Width	2 mm
Ovaries	Enclosed in calyx

Plant

Form	A spray mum meant for erect culture
Growth habit	Upright
Growth rate	Very vigorous
Height	125 – 135 cm
Internodes	2.5 – 3.0 cm
Spray formation	Corymbiform
Stem Color	Yellow-green 147 B
Stem Strength	Medium
Stem Brittleness	Present
Stem Anthocyanin Coloration	Absent
Peduncle length	Near the top 16 cm, near the middle 23 cm, near the bottom 28 cm
Peduncle color	Green 147 B
Peduncle, attachment	Brittle
Peduncle, angle with stem	Small, 30 °C
Flowering Response(photo-periodic controlled crop, not natural season)	47 days

Foliage

Color	Upper side yellow-green 147 A Under side green 138 B
Size	large; length 12.0 – 14.0 cm, width 7.0 – 8.0 cm
Quantity (number per single stem)	30 – 34
Shape	Ovate and deeply lobed
Texture upper side	Fleshy and glabrous
Texture under side	Pubescent

Ribs and veins upper side	Ribs and veins well developed
Ribs and veins under side	Ribs and veins well developed
Venation arrangement	Palmate
Shape of the margin	Lobed
Shape of Base of Sinus Between Lateral Lobes	Round
Margin of Sinus Between Lateral Lobes	Converging
Shape of Base	Rounded
Apex	Mucronate

Table 2: Differences with the comparison Varieties

	'Redock Dark'	'Redock'	'Dark Reagan'	'Blue Pink Elite Reagan'
Ray-floret color	Red-purple 74 D	Purple 75 A	Red-purple 69 B	Purple 75 C
Flower height	High	High	Flat	Flat
Cross-section of ray-floret	Strongly concave	Strongly concave	flat	Flat
Vigour	Very vigorous	Very vigorous	Vigorous	Vigorous
Plant height	125 – 135 cm	125 – 135 cm	100 – 125 cm	105 – 130 cm